

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the above-referenced application:

- 1 1. (Original) An apparatus comprising:
2 a first substrate;
3 an optoelectronic device formed on the first substrate, the optoelectronic
4 device having a frequency response; and
5 a matching circuit formed on the first substrate and coupled to the
6 optoelectronic device to change its frequency response.

- 1 2. (Original) An apparatus as in claim 1, further comprising:
2 a driver circuit that communicates with and controls the optoelectronic
3 device.

- 1 3. (Original) An apparatus as in claim 2, further comprising:
2 a second substrate, wherein the driver circuit is formed on the second
3 substrate.

- 1 4. (Original) An apparatus as in claim 3, wherein the matching circuit
2 is selected to match the frequency response of the optoelectronic device to the driver
3 circuit for optimal performance.

- 1 5. (Original) An apparatus as in claim 4, wherein the optoelectronic
2 device is a Vertical Cavity Surface Emitting Laser (VCSEL).

- 1 6. (Original) An apparatus as in claim 4, wherein the optoelectronic
2 device is an edge-emitting diode.

- 1 7. (Original) An apparatus as in claim 4, wherein the matching circuit
2 includes a passive device from the group consisting of inductors, capacitors, resistors,
3 stubs, and diodes.

1 8. (Original) An apparatus as in claim 4, wherein the optoelectronic
2 device is flip-chip mounted to the auxiliary circuit.

1 9. (Currently amended) An apparatus as in claim 1 ~~2~~, ~~further comprising:~~
2 wherein the driver comprises an amplifier that communicates with and amplifies a
3 signal from the optoelectronic device.

1 10. (Original) An apparatus as in claim 9, further comprising:
2 a second substrate, wherein the amplifier is formed on the second
3 substrate.

1 11. (Original) An apparatus as in claim 10, wherein the matching
2 circuit is selected to match the frequency response of the optoelectronic device to the
3 amplifier for optimal performance.

1 12. (Original) An apparatus as in claim 11, wherein the matching
2 circuit includes a passive device from the group consisting of inductors, capacitors,
3 resistors, stubs, and diodes.

1 13. (Original) An apparatus as in claim 12, wherein the optoelectronic
2 device is a photosensor.

1 14. (Original) An apparatus as in claim 13, wherein the photosensor is
2 flip-chip mounted to the amplifier.